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09/730,217	12/05/2000	Ronald M. Wexler	81828RLO	9169

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Patent Legal Staff
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EXAMINER

PARK, CHAN S

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/730,217

Applicant(s)

WEXLER ET AL

Examiner

CHAN S. PARK

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


TWYLER LAMB
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 11/18/04, and has been entered and made of record. Currently, **claims 1-54** are pending.

Specification

2. The corrected or substitute specification was received on 11/18/04. The specification is acceptable.

Allowable Subject Matter

3. The indicated allowability of claims 9-54 is withdrawn in view of the newly discovered reference(s) to Bryant et al. U.S. Patent No. 6,748,106 (hereinafter Bryant). Rejections based on the newly cited reference(s) follow.

Response to Arguments

4. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claim 1 is objected to because of the following informalities:
Line 2, "a output medium" should be -- an output medium --.
6. Claim 12, line 2, "include" should be -- includes --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1, 4-6, 8, 9, 12, 13, 15, 17, 19, 20, 22, 24, 25, 26, 34, 45 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "the output medium". There is insufficient antecedent basis for this limitation in the claim. It is confusing as to whether the limitation is referring to "a medium" or "an output medium". Clear distinction between the two is respectfully requested.

8. With respect to claims 4, 5 and 6, arguments analogous to those presented for claim 1, are applicable.

9. Furthermore, with respect to claim 1, it recites "processing such image". It is uncertain as to whether "such image" is referring to "an image". Explanation is respectfully requested.

Furthermore, it recites "producing a digital representation of information". It is unclear as to whether this "information" refers to the "digital information". If they are the same, how is the "digital information" that is formed according to step (a) any different from the "digital representation of information" produced in step (d)? Isn't the digital

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information already in the form of the digital representation? Explanation/clarification from the original Specification is respectfully requested.

Furthermore, it recites "producing a digital representation of information in the image". It is, however, noted that the information is not in the image. Step (a) seems to claim that the information is not a part of the image. Rather, this information is something that is generated/formed from the image. If it is included in the image later, this step of including the digital information in the image should be claimed. Again, explanation/clarification from the original Specification is respectfully requested to support this limitation.

10. Claim 8 recites the limitation "the output medium". There is insufficient antecedent basis for this limitation in the claim. It is confusing as to whether the limitation is referring to "a medium" or "a hard-copy output medium". Clear distinction between the two is respectfully requested. Further, "the recording properties" lacks antecedent basis in the claim.

Furthermore, step (d) recites "the image". It is unclear as to whether it refers to the "digital image". If so, does it refer to "the extended color gamut digital image" or "the adjusted extended color gamut digital image"? Where is the information from? Is it from "the extended color gamut digital image" or "the adjusted extended color gamut digital image"? Explanation/clarification from the original Specification is respectfully requested to support this limitation.

11. Claim 9 recites the limitation "the output medium". There is insufficient antecedent basis for this limitation in the claim. It is confusing as to whether the

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limitation is referring to "a medium", "an output medium" or "the hard-copy output medium". Clear distinction is respectfully requested.

12. With respect to claims 12, 13, 15, 17, 19, 20, 22, 24, 25, 26, 34, 45 and 49, arguments analogous to those presented for claim 9, are applicable.

13. Claims 19, 20, 24 and 25 recite the limitation "the ultraviolet". There is insufficient antecedent basis for this limitation in the claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 9-12 and 15-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6-10, 12-34 and 37-45 of U.S. Patent No. 6,748,106 in view of Bourdelais et al. U.S. Patent No. 5,874,205.

14. With respect to claim 9, claim 1 of Bryant recites a method for representing an extended color gamut digital image on a hard-copy output medium having a limited color gamut comprising the steps of:

- a) adjusting the color values of the extended color gamut digital image to fit within the limited color gamut of the output medium to form a limited color gamut digital image;

- b) producing a limited color gamut output print from the limited color gamut digital image on the hard-copy output medium;

- c) determining a residual image representing a difference between the extended color gamut digital image and the limited color gamut digital image; and

- d) encoding the residual image on the output print using a digital encoding means such that the residual image and the limited color gamut output print are adapted to be used to form a reconstructed extended color gamut digital image.

Bryant, however, does not expressly recite the limitations of providing a medium including an oriented polymer and recording the residual image on the output medium.

Bourdelaïs, the same field of endeavor of the color printing art, teaches the method for providing a medium including an oriented polymer and recording the residual image on the output medium (col. 3, lines 32-47).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the medium including the oriented polymer in the printing method of Bryant.

The suggestion/motivation for doing so would have been to protect the medium from fading when it is in use (col. 3, lines 35-36 of Bryant).

15. With respect to claim 10, Bourdelaïs teaches that the oriented polymer includes a polypropylene or polyester (col. 3, lines 32-47).

16. With respect to claim 11, Bourdelaïs teaches that the polypropylene or polyester is biaxially oriented (col. 3, lines 32-47).

17. With respect to claim 12, Bourdelaïs teaches that the medium includes at least two layers and each includes either biaxially oriented polypropylene or biaxially oriented polyester (col. 3, lines 49-58 & col. 6, lines 42-54).

18. With respect to claims 15-17, read claims 2-4 of Bryant respectively.

19. With respect to claims 18-22, read claims 6-10 of Bryant respectively.

20. With respect to claims 23-44, read claims 12-33 of Bryant respectively.

21. With respect to claim 45, read claim 37 of Bryant. Further, arguments analogous to those presented for claim 13, are applicable.

22. With respect to claims 46-48, read claims 38-40 of Bryant respectively.

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23. With respect to claim 49, read claim 42 of Bryant. Further, arguments analogous to those presented for claim 13, are applicable.
24. With respect to claims 50-51, read claims 43-44 of Bryant respectively.
25. With respect to claim 52, read claim 41 of Bryant.
26. With respect to claim 53, read claim 34 of Bryant.
27. With respect to claim 54, read claim 45 of Bryant.

Claims 13 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claim 1 of U.S. Patent No. 6,748,106 and Bourdelais as applied to claim 12, and in further view of Shaw et al. U.S. Patent No. 6,218,004 (hereinafter Shaw).

28. With respect to claim 13, the combination teaches the method of claim 12, but it does not teach expressly that the medium includes a hindered amine light stabilizer.

Shaw, the same field of endeavor of the print medium processing, teaches a method of producing sheet materials for paper or films. Shaw teaches incorporating additives such as UV light stabilizers, UV photoinitiators and UV photosensitizers. UV light stabilizers such as hindered amines can be incorporated (col. 19, lines 32-56).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the UV light stabilizers of Shaw to the biaxially oriented polymer of Benoit and with the printing system of Yoda.

The suggestion/motivation for doing so would have been to provide the films with an inhibited polymer degradation layer.

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29. With respect to claim 14, arguments analogous to those presented for claim 13, are applicable. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the hindered amine light stabilizer to each layer of the polymer to help inhibit polymer degradation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoda U.S. Patent No. 6,239,818 in view of Benoit et al. U.S. Patent No. 6,270,610 (hereinafter Benoit).

30. With respect to claim 1, Yoda teaches the method for recording an image and information pertaining to such image on an output medium (banknotes in col. 1, lines 46-62), comprising:

providing an image (col. 6, lines 46-50), and processing such image to form digital information related to such image (col. 6, lines 50-52);

recording the image on the output medium (col. 9, lines 7-24); and

producing a digital representation of information in the image which was not recorded in the image on the output medium and recording the digital representation on the output medium (col. 9, lines 7-24).

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Yoda, however, does not teach expressly the method for providing a medium including an oriented polymer.

Benoit, the same field of endeavor of printing medium processing, teaches a method of manufacturing a biaxially oriented polymer (col. 5, lines 38-58). Further, Benoit teaches that the system is particularly advantageous for printing banknotes (col. 10, lines 41-47).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the biaxially oriented polymer of Benoit with the printing system of Yoda.

The suggestion/motivation for doing so would have been to provide the printing medium with high bond strength between the layers of the medium.

Therefore, it would have been obvious to combine Yoda with Benoit to obtain the invention as specified in claim 1.

31. With respect to claim 2, Benoit teaches the method of manufacturing a biaxially oriented polymer wherein the polymer includes polypropylene (col. 9, lines 50-57).

32. With respect to claim 3, Benoit teaches the method of manufacturing a biaxially oriented polymer wherein the polymer includes polypropylene (col. 9, lines 50-57).

33. With respect to claim 4, Benoit teaches the method of manufacturing a biaxially oriented polymer wherein the polymer includes polypropylene (col. 9, lines 50-57). As taught by Benoit, there are two layers of high-density polyethylene with copolymer polypropylene skins on both sides to form layers A and B. The layers A and B were

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then biaxially oriented 1.4 times in the machine direction and 6 to 12 times in the transverse direction.

34. With respect to claim 7, Benoit teaches that voided films can be used as well in the process (col. 6, lines 51-56).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yoda and Benoit as applied to claim 1 above, and further in view of Shaw.

35. With respect to claim 5, the combination teaches the method of claim 1, but it does not teach expressly that the medium includes a hindered amine light stabilizer.

Shaw, the same field of endeavor of the print medium processing, teaches a method of producing sheet materials for paper or films. Shaw teaches incorporating additives such as UV light stabilizers, UV photoinitiators and UV photosensitizers. UV light stabilizers such as hindered amines can be incorporated (col. 19, lines 32-56).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the UV light stabilizers of Shaw to the biaxially oriented polymer of Benoit and with the printing system of Yoda.

The suggestion/motivation for doing so would have been to provide the films with an inhibited polymer degradation layer.

Therefore, it would have been obvious to combine Yoda and Benoit with Shaw to obtain the invention as specified in claim 5.

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36. With respect to claim 6, arguments analogous to those presented for claim 5, are applicable. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the hindered amine light stabilizer to each layer of the polymer to help inhibit polymer degradation.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hidaka U.S. Patent No. 6,344,900 in view of Benoit, and further in view of Yoda.

37. With respect to claim 8, Hidaka teaches a method of recording an image on a print medium and adjusting the original image characteristics taking into consideration the luminance and chrominance of the image (col. 6, lines 34-67). Hidaka then adjusts the image to take into the consideration the limited characteristics of the output medium and prints the image on output medium (col. 8, lines 38-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made that Hidaka is taking into consideration the color gamut of the original image and adjusting for the both types of inks used, printer values, and paper to be used. However, Hidaka does not explicitly teach printing information on the output with respect to the image or using a biaxially oriented polypropylene.

Whereas, Benoit teaches the method of manufacturing a biaxially oriented polymer wherein the polymer includes polypropylene wherein the polymer includes polypropylene (col. 9, lines 50-57). As taught by Benoit, there are two layers of high-density polyethylene with copolymer polypropylene skins on both sides to form layers A

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and B. The layers A and B were then biaxially oriented 1.4 times in the machine direction and 6 to 12 times in the transverse direction.

Further, Yoda teaches the method for recording an image and information pertaining to such image on an output medium (banknotes in col. 1, lines 46-62), comprising:

providing an image (col. 6, lines 46-50), and processing such image to form digital information related to such image (col. 6, lines 50-52);

recording the image on the output medium (col. 9, lines 7-24); and

producing a digital representation of information in the image which was not recorded in the image on the output medium and recording the digital representation on the output medium (col. 9, lines 7-24).

Hidaka, Benoit and Yoda are analogous art because they are from the same field of endeavor, that is the print image processing.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the ability to print the information pertaining to an image of Yoda with the biaxially oriented polymer of Benoit and with the system of Hidaka.

The suggestion/motivation for doing so would have been to provide both the ability to have the entire image information on the print an inconspicuous manner and by utilizing a biaxially oriented polymer it provides the paper with high bond strength between the layers of the medium.

Therefore, it would have been obvious to combine Hidaka and Yoda with Benoit to obtain the invention as specified in claim 8.

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Conclusion


38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan S. Park
Examiner
Art Unit 2622

csp
August 4, 2005


TWYLER LAMB
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